CLAIMS:

What is claimed is:

1. An apparatus, comprising:

a first electro-mechanical device, the first electro-mechanical device having a first end portion and a second end portion, the first end portion of the first electro-mechanical device being fixedly coupled to a base member, the first electro-mechanical device being configured to operate in a plurality of resonant modes;

a second electro-mechanical device, the second electro-mechanical device having a first end portion and a second end portion, the first end portion of the second electro-mechanical device being fixedly coupled to a base member, the second electro-mechanical device being configured to operate in a plurality of resonant modes;

a first mass coupled to the second end portion of the first electro-mechanical device; and

a second mass coupled to the second end portion of the second electro-mechanical device, the first electro-mechanical device and the second electro-mechanical device being configured collectively to operate in a plurality of operational modes, each operational mode from the plurality of operational modes being uniquely associated with at least one of a resonant mode from the plurality of modes for the first electro-mechanical device and a resonant mode from the plurality of modes for the second electro-mechanical device.

2. The apparatus of claim 1, wherein the first mass is different than the second mass.

3. The apparatus of claim 1, wherein the first electro-mechanical device has a length, the second electro-mechanical device having a length different than the length the first electro-mechanical device.

4. The apparatus of claim 1, further comprising:

a third electro-mechanical device, the third electro-mechanical device having a first end portion and a second end portion, the first end portion of the third electro-mechanical device being fixedly coupled to a base member; and

a third mass coupled to the second end portion of the third electro-mechanical device, the first electro-mechanical device, the second electro-mechanical device and the third electro-mechanical device being configured collectively to operate in a plurality of operational modes.

5. The apparatus of claim 1, wherein the first electro-mechanical device is a piezoelectric device.

6. The apparatus of claim 1, wherein the first electro-mechanical device is a piezoelectric device and the second electro-mechanical device is a piezoelectric device.

7. The apparatus of claim 1, wherein the first electro-mechanical device is one of a resonant eccentric rotating mass, and an electro-active polymer device.

8. The apparatus of claim 1, further comprising:

a voltage source, the voltage source being configured to apply a voltage to the first electro-mechanical device and the second electro-mechanical device in response to a signal.

9. A method, comprising:

receiving a drive signal associated with a haptic feedback signal; and

applying the drive signal to an electro-mechanical transducer, the electro-mechanical transducer operating in at least one resonant mode from a plurality of resonant modes in response to the drive signal.

10. The method of claim 9, the electro-mechanical transducer being a first electro-mechanical device, the method further comprising:

applying the drive signal to a second electro-mechanical device different from the first electro-mechanical device, the first electro-mechanical device and the second electro-mechanical device collectively operating in one operational mode from a plurality of operational modes in response to the drive signal for the first electro-mechanical device and the drive signal for the second electro-mechanical device.

11. The method of claim 9, the electro-mechanical transducer being a first electro-mechanical device, the method further comprising:

applying the drive signal to a second electro-mechanical device different from the first electro-mechanical device, the first electro-mechanical device and the second electro-mechanical device collectively operating in one operational mode from a plurality of operational modes in response to the drive signal for the first electro-mechanical device and the drive signal for the second electro-mechanical device, the plurality of operational modes including a first operational mode and a second operational mode; and

changing from the first operational mode to the second operational mode, at least one the resonant mode of first electro-mechanical device and the resonant mode of the second electro-mechanical device for the first operational mode differing for the second operational mode.

12. The method of claim 9, the electro-mechanical transducer being a first electro-mechanical device, further comprising:

applying the drive signal to a second electro-mechanical device different from the first electro-mechanical device, the first electro-mechanical device and the second electro-mechanical device collectively operating in one operational mode from a plurality of operational modes in response to the drive signal for the first electro-mechanical device and the drive signal for the second electro-mechanical device,

the first operational mode being associated with the applying the drive signal to the first electro-mechanical device when the drive signal to the second electro-mechanical device is not applied,

the second operational mode being associated with the applying the drive signal to the second electro-mechanical device when the drive signal to the first electro-mechanical device is not applied.

13. A method, comprising:

receiving a drive signal; and

applying the drive signal to an electro-mechanical transducer, the electro-mechanical transducer having a plurality of operational modes in response to the drive signal, each operational mode from the plurality of operational modes having its own combination of at least one resonant mode from a plurality of resonant modes.

14. The method of claim 13, the electro-mechanical transducer being a first electro-mechanical device, the plurality of operational modes including a first operational mode and a second operational mode, the drive signal being associated with the first operational mode, the method further comprising:

applying the drive signal to a second electro-mechanical device different from the first electro-mechanical device, the second electro-mechanical device and the first electro-mechanical device collectively having the plurality of operational modes.

15. The method of claim 13, the electro-mechanical transducer being a first electro-mechanical device, the method further comprising:

applying the drive signal to a second electro-mechanical device different from the first electro-mechanical device, the second electro-mechanical device and the first electro-mechanical device collectively having the plurality of operational modes, the plurality of operational modes including a first operational mode and a second operational mode; and

changing from the first operational mode to the second operational mode by altering a characteristic of the drive signal.

16. The method of claim 13, the plurality of operational modes including a first operational mode and a second operational mode, the drive signal being associated with the first operational mode, the method further comprising:

changing from the first operational mode to the second operational mode by altering a characteristic of the drive signal.

17. An apparatus, comprising:

a signal source, the signal source being configured to output a haptic feedback signal;

a driver, the driver being configured to receive the haptic feedback signal and output a drive signal; and

an electro-mechanical transducer being configured to receive the drive signal, the electro-mechanical transducer being configured to have a plurality of operational modes, each

operational mode from the plurality of operational modes having at least one resonant mode from a plurality of resonant modes.

18. The apparatus of claim 17, wherein the electro-mechanical transducer is a piezoelectric transducer.

19. The apparatus of claim 17, wherein the electro-mechanical transducer is an electro-active polymer.

20. The apparatus of claim 17, the electro-mechanical transducer being a first electro-mechanical device, the apparatus further comprising:

a second electro-mechanical device different from the first electro-mechanical device, the second electro-mechanical device being configured to receive the drive signal, the plurality of operational modes being associated with the first electro-mechanical transducer and the second electro-mechanical transducer collectively.